Amendments to the Claims:

1. (Currently amended) A computer-implemented method for distributing parts to customer locations, the method comprising:

using a processor to prioritize requests for parts from inventory;

using the processor to prioritize customer locations that have need for the parts to create priorities for the customer locations; and

using the processor to form a shipment plan by iteratively assigning a defined minimum size allotment of the parts to a customer location having a current ~~highest~~ priority and then reprioritizing the priorities of all <u>customer</u> locations and ~~again~~ assigning <u>a</u> ~~the~~ defined minimum size allotment of the parts to a customer location having a new current ~~highest~~ priority, until one of all of the parts from inventory have been assigned and no customer location needs more of the parts assigned, wherein each current ~~highest~~ priority is determined from all <u>customer</u> locations for each iteration.

2. (Original) The method of claim 1, further comprising defining the minimum size allotment.

3. (Currently amended) The method of claim 2, wherein each customer location having a need for the parts from inventory has a percentage need for said parts, and wherein the <u>using the processor to</u> form~~ing~~ a shipment plan includes assigning <u>a</u> ~~the~~ minimum size allotment to a ~~highest~~ priority location in each iteration and thereafter re-assigning the priorities such that each customer location having a need is driven to <u>a</u> ~~the~~ same percentage need.

4. (Original) The method of claim 3, further comprising performing a pallet size pass on the shipment plan.

5. (Original) The method of claim 4, wherein the pallet size pass is based on a threshold quantity at which multiples of shippers are cut in full pallets.

6. (Original) The method of claim 5, wherein the pallet size pass is based on a pallet quantity that is a quantity of parts that constitutes a full pallet.

7. (Original) The method of claim 6, wherein each shipper that passes through the pallet size pass has a number of parts greater than the threshold quantity and equal to or less than the pallet quantity.

8. (Original) The method of claim 4, further comprising performing a volume based filter pass on the shipment plan.

9. (Original) The method of claim 8, wherein the volume based filter pass is based on a minimum shipment quantity defining a smallest amount of parts for a specific location or part type.

10. (Original) The method of claim 8, wherein the volume based filter pass is based on a percentage impact threshold that is a function of a recommended shipper and a target inventory for a specific location or part type.

11. (Original) The method of claim 8, wherein the parts are shipped from a single source.

12. (Previously presented) The method of claim 8, wherein the parts are shipped from multiple sources, and further comprising determining a splitting of the shipping of the parts among the multiple sources to fulfill the requests for parts from the customer locations.

13. (Original) The method of claim 12, wherein the determining includes forming a balanced supply/demand.

14. (Previously presented) The method of claim 13, wherein the determining further comprises using geographic/local sales rules in which specified geographic and local sales shipments are prioritized over optimization of shipments.

15. (Currently amended) The method of claim 14, wherein the determining further comprises using a business rule ~~filtering~~ in which specified business rules are prioritized over optimization of shipments.

16. (Currently amended) The method of claim 15, further comprising creating a set of supply demand scenarios with combinations of ~~fully~~ providing available supply to a demand point in a matrix, and subsequently performing a sum of squares on the matrix, with the highest sum of squares forming a part of said shipment plan.

17. (Currently amended) A computer readable medium bearing programming instructions, which, when executed by a computer, cause the computer to perform a method to determine distribution of parts from inventory to customer locations, said method comprising:

prioritizing requests for a part from inventory by the customer locations based on the part, a priority need for the part, and inventory available to ship;

prioritizing the customer locations that have a need for the part to create priorities for the customer locations; and

forming a shipment plan by iteratively:

assigning a defined minimum size allotment of the parts to the customer location having a current ~~highest~~ priority and then reprioritizing the priorities of all <u>customer</u> locations and ~~again~~ assigning <u>a</u> ~~the~~ defined minimum size allotment of the parts to <u>a</u> ~~the~~ customer location having a new current ~~highest~~ priority, until one of all of the parts from inventory have been assigned and no customer location needs more of the parts assigned, wherein each current ~~highest~~ priority is determined from all <u>customer</u> locations for each iteration.

18. (Previously presented) The computer readable medium of claim 17, wherein the method further comprises performing lot sizing optimization after the shipment plan is formed.

19. (Previously presented) The computer readable medium of claim 18, wherein the method further comprises splitting the shipping of the parts among multiple sources of the parts.

20. (Currently amended) A system for determining distribution of goods to customer locations, comprising:

a processor that ~~receives~~ accesses requests for parts to be delivered to customer locations; and

means for forming a shipment plan of the goods to said customer locations, by iteratively assigning a defined minimum size allotment of the parts to a customer location having a current ~~highest~~ priority and then reprioritizing the priorities of all customer locations and ~~again~~ assigning a ~~the~~ defined minimum size allotment of the parts to a ~~the~~ customer location having a new current ~~highest~~ priority, until one of all of the parts from inventory have been assigned and no customer location needs more of the parts assigned, wherein each current ~~highest~~ priority is determined from all customer locations for each iteration.